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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/511,344
Filing Date: May 23, 2005
Appellant(s): DE KROON ET AL.

Bryan H. Davidson
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 04/08/2010 appealing from the Office action mailed 10/06/2009.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 1, 5, and 8-29.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS."

New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

WO 2000/39192	JOACHIMI et al.	07-2000
US 6,566,486 B1	JOACHIMI et al.	05-2003
US 3,798,115	HOFMANN	3-1974
US 5,866,214	RAMESH	2-1999
US 5,290,866	DOBRESKI et al.	3-1994

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Issue I: Rejection of Claims 1, 5, 8, 12-18 and 22-25 Under 35 U.S.C. 103(a) over Joachimi et al. in view of Hofmann

Claims 1, 5, 8, 18, 12-17, 22-25 rejected under 35 U.S.C. 103(a) as being unpatentable over Joachimi et al. (WO 2000/39192) in view of Hofmann (US 3,798,115).

For purposes of the rejection the examiner refers to the English language equivalent of Joachimi et al., US 6,566,486.

Joachimi discloses branched polyamide molding materials that are applied to polyolefin layers to form multilayer films (col. 2, line 43 to col. 3, line 25; col. 6, lines 15-23). Blow film extrusion or coextrusion are noted as a production method for the formation of films (col. 6, lines 1-

4). Blow molding is noted as a preferred production method for the multilayer films (col. 5, line 64 to col. 6, line 7).

Joachimi fails to disclose suitable polyolefin layers such as polypropylene or LLDPE, as claimed. Thus attention is directed to the Hofmann reference which discloses blow molding of a sandwich laminate comprising as the outer layer polyamide, an intermediate layer of a mixture of polyamide and polypropylene and an innermost layer of polypropylene (abstract; Example 1). Wherein Hofmann exemplifies the following film thicknesses: polyamide 40 microns, polypropylene/ polyamide 15 microns, and polypropylene 50 microns (Example 1). Thus yielding a total thickness of 105 microns. The polypropylene of Hofmann can have an intrinsic viscosity that is high or low, thus the reference readily envisages both linear and branched types (col. 2, line 56 to col. 3, line 4).

In view of the foregoing, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the branched polyamide of Joachimi in the multilayer sandwich laminate of Hofmann, in order improve the existing product of Hofmann. Wherein the branched polyamide of Joachimi exhibits very high melt viscosities at low shear rates, as are required in various processes (col. 2, lines 5-9). Thus resulting in an improved sandwich laminate of Hofmann, wherein it would be obvious to one of ordinary skill to create a larger variety of laminates as per the teachings of Joachimi and Hofmann given the improved properties.

In reference to claim 17, Joachimi and Hofmann in combination fail to disclose that the flown film has a blow-up ratio of from 20 to 40%. It would have been obvious to one of ordinary skill in the art at the time of the invention to control the blow-up ratio, wherein the blow-up ratio of the blown film is a readily manipulatable parameter. The motivation to modify the blow-up ratio is

to control the diameter of the final product while blown in the die or mold cavity, instead of modifying the size of the die or cavity.

Issue II: Rejection of Claims 1, 5, 9-11, 19-21, 26 and 28 Under 35 U.S.C. 103(a) over Joachimi et al. in view of Ramesh

Claims 1, 5, 9-11, 19-21, 26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joachimi et al. (WO 2000/39192) in view of Ramesh (US 5,866,214).

Joachimi applies as discussed above, but fails to disclose that the polyolefin layer consists of LLDPE. Thus attention is directed towards the Ramesh reference which discloses formation of a multilayer blown film, wherein the outermost layers comprise LLDPE and the inner layer is polyamide (Example 4). Wherein it would have been obvious to include the branched polyamide of Joachimi in the multilayer film of Ramesh in order to utilize a polyamide which exhibits very high melt viscosities at low shear rates, as are required in blow molding related processes, and thus ensure effective formation of the film.

Issue III: Rejection of Claims 27 and 29 Under 35 U.S.C. 103(a) over Joachimi et al. in view of Ramesh, in further view of Dobreski et al.

Claims 27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joachimi et al. (WO 2000/39192) in view of Ramesh (US 5,866,214), in further view of Dobreski et al. (US 5,290,866).

Joachimi and Ramesh apply as discussed above, but fail to disclose the inclusion of a modified LLDPE. Dobreski discloses a modified LLDPE comprising a 10% mixture of an acrylic polymer (abstract), wherein the modified LLDPE results in films with good tear strength and impact properties (col. 2, lines 20-31). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the modified LLDPE of Dobreski in the LLDPE layers taught by

the combination of Joachimi and Ramesh in order to form a multilayer film having LLDPE layers with good tear strength and impact properties.

Regarding the claimed amounts of LLDPE and modified LLDPE, Ramesh exemplifies LLDPE layers with 20% of a modifying polymer (Example 2). Wherein the amount of a modifying polymer is recognized as a result-effective variable because changing it will clearly affect the type of product obtained. Wherein a larger amount of the modified LLDPE of Dobreski will result in an increase in the tear strength and impact properties of the final film. Thus it would have been obvious to one of ordinary skill in the art to utilize the modified LLDPE within the claimed amount so as to produce the desired end results.

(10) Response to Argument

Response to Arguments Concerning Issue I

Appellants have set forth two arguments, firstly appellants argue the presence of unexpected results and secondly appellants argue that one skilled in the art would not obtain the presently claimed invention from Joachimi and Hofmann. The latter argument will be addressed first.

Issue I: Prior Art Rejection

Appellants argue that albeit Joachimi discloses blown film extrusion as a suitable processing technique, the preferred processes include injection molding, extrusion or extrusion blow molding. Thus, appellants argue, Joachimi does not relate to a process for preparing blown film and problems associated therewith. In response, the examiner has carefully reviewed appellants' arguments and in view of MPEP § 2123 the examiner has maintained the rejection. MPEP § 2123 makes clear that patents are relevant as prior art for all they contain, specifically, a reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill the art, including nonpreferred embodiments. *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843

(Fed. Cir.), *cert. denied*, 493 U.S. 975 (1989). Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. *In re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971). Accordingly, Joachimi's disclosure of blown film extrusion as a suitable processing technique is properly relied on in the rejection. The preferred processing techniques of Joachimi do not constitute a teaching away from the nonpreferred embodiments.

In response to appellants' argument that Joachimi does not relate to the problems associated with preparing blown films and does not recognize the blow-up ratio, the fact that appellants have recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Appellants then argue that the inner layer of Hofmann cannot be considered to read on the claimed adhesive layer, as defined by the specification. In response, the examiner has carefully reviewed appellants' arguments and in view of MPEP § 2111 the examiner has maintained the rejection. MPEP § 2111 states that the pending claims must be "given their broadest reasonable interpretation consistent with the specification." The PTO determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction "in light of the specification as it would be interpreted by one of ordinary skill in the art." *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364[, 70 USPQ2d 1827] (Fed. Cir. 2004). Further, MPEP § 2111.01(II) states that it is improper to import claim limitations from the specification, specifically, "[t]hough understanding the claim language may be aided by explanations contained in the written description, it is important not to import into a claim limitations that are not part of the claim. For example, a particular embodiment appearing in the written description

may not be read into a claim when the claim language is broader than the embodiment." *Superguide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870, 875, 69 USPQ2d 1865, 1868 (Fed. Cir. 2004).

The broadest reasonable interpretation of the claimed "adhesive layer" consistent with the specification as interpreted by one skilled in the art includes any material capable of adhering the two outer layers. Appellants' disclosure in the specification of suitable materials for the adhesive layer cannot properly be imported in the to claim, especially since the claim language is broader than the embodiments present in the specification. Hofmann's disclosure of a layer in-between the two outer layers, wherein the inner layer functions to bond together the two outer layers reads on the claimed adhesive layer. Additionally, it is noted that the Joachimi, not Hofmann, is relied on to teach the claimed branched polyamides. In summation, the examiner has set forth a valid *prima facie* case of obviousness and appellants have failed to come forward with arguments and/or evidence to rebut the *prima facie* case.

Issue I: Lack of Unexpected Results

Appellants argue the presence of unexpected results due to the use of a branched polyamide instead of a linear polyamide. On 03/21/2008 appellants submitted a Declaration Under Rule 1.132 which essentially summarized the experimental evidence presented in the specification. The examiner considered the allegation of unexpected results and maintains that the statements and examples provided are insufficient to establish unexpected results.

Appellants have argued for the comparison of the inventive example against Comparative Experiment C of page 6 of the specification (see the paragraph bridging pages 9-10 of the Appeal Brief). The specification fails to contain a Comparative Experiment C; however the Comparative Example having a non-branched polyamide layer and a LLDPE layer is Comparative Example B. According, the examiner will address the comparison of Example II (branched polyamide layer used

with LLDPE layer) against Comparative Experiment B (non-branched polyamide layer used with a LLDPE layer).

The examiner notes that Example II appears to be unexpectedly better than Comparative Example B given the bubble stability of 2.5 versus the lack of a bubble, respectively. This apparent unexpected showing is only valid for the specifically claimed species of each component and the specific amounts of each component utilized. However, this showing is insufficient to establish unexpected results of the claimed subject matter for various reasons as discussed below.

Firstly, the unexpected results are not commensurate in scope with the claimed invention. Appellants' claims are generic to the claimed components, whereas the examples are drawn to species of the claimed components. For example, the claims are open to a polyolefin layer consisting essentially of polypropylene, whereas the examples do not even test polypropylene.

Secondly, appellants have claimed open ranges for the ratio of the components present in the polyolefin layer, whereas the examples are drawn to specific amounts of each of the components (Example II: 90 wt% LLDPE and 10 wt% Yparex). Attention is directed to MPEP § 716.02(d)(I), which states that nonobviousness of a genus or claimed range may be supported by data showing unexpected results from testing a narrower range if one of ordinary skill in the art would be able to determine a trend in the exemplified data which would allow the artisan to reasonably extend the probative value thereof. Appellants have failed to provide an adequate basis for reasonably concluding that the great number and variety of compositions included in the claims would behave in the same manner as the tested composition.

Thirdly, appellants have attempted provided rebuttal evidence against the facts on which the conclusion of the *prima facie* case is established by citing the comparison of Examples I and II. Appellants have argued that the 0.4 difference in blow-up ratio of Example I and Example II is of

technical significance and this difference is due to the presence or lack thereof of LDPE. The comparison of Example I and II is insufficient to overcome the prior art rejection at least because of the lack of commensuration in scope with the claimed invention and open ranges, as discussed above. Additionally, even though the 0.4 difference may be of technical significance, it does not indicate unexpected results. As per MPEP § 716.02, any differences between the claimed invention and the prior art may be expected to result in some differences in properties. The issue is whether the properties differ to such an extent that the difference is really unexpected. *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Appellant has failed to provide any evidence that such a difference is unexpected, modification of components comprising the film are expected to alter the blow-up ratio. The evidence fails to establish that the differences are in fact unexpected, unobvious, and of both statistical and practical significance. Even though the data maybe of statistical and practical significance, the test is four pronged and requires both unexpected and unobvious differences to be present. Such unexpected and unobvious differences are absent in the comparison of Examples I and II. Thus, the comparison of Example I against Example II is insufficient to overcome the prior art rejection. In summation, when all of the evidence is considered, the totality of the rebuttal evidence of nonobviousness fails to outweigh the evidence of obviousness.

Response to Arguments Concerning Issue II

Appellants have argued that the problem addressed by Ramesh is distinct from the problem of appellants – the desire to obtain higher processing rates and blow-up ratios for the claimed multilayer film. In response, the examiner has carefully reviewed appellants' arguments and in view of MPEP § 2144(IV) the examiner has maintained the rejection. MPEP § 2144(IV) states that it is permissible to employ rational different from applicant in supporting a rejection under 35 U.S.C. 103(a). Specifically, it is not necessary that the prior art suggest the combination to achieve the same

advantage or result discovered by applicant. *In re Kahn*, 441 F.3d 977, 987, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). The fact that appellants have recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). Accordingly, it is not necessary that Ramesh address appellants' problem. Ramesh is relied on to teach a multilayer blown film comprising outermost layers of LLDPE and an inner layer of polyamide. Joachimi, not Ramesh, is relied on to teach the claimed branched polyamides. The rational relied on in the rejection – ensure effective film formation – is different from appellants rational and property relied upon. In summation, the examiner has set forth a valid *prima facie* case of obviousness and appellants have failed to come forward with arguments and/or evidence to rebut the *prima facie* case.

Response to Arguments Concerning Issue III

Appellants have argued that Dobreski et al. does not relate to a multilayer film, teaches to use a blend for the LLDPE layer, and fails to mention polyamide layers. In response, it is not necessary that Dobreski relate to a multilayer film or mention polyamide layers. As discussed in the rejection above, Ramesh is relied on to teach the claimed multilayer film and Joachimi is relied on to teach the claimed branched polyamide. Dobreski is relied on to teach the inclusion of a modified LLDPE (in the LLDPE layers taught by Joachimi and Ramesh) to form a multilayer film having LLDPE layers with good tear strength and impact properties. More generally, Dobreski is relied on to combine prior art elements accordingly to known methods to yield predictable results.

The claims require a "modified LLDPE," wherein Dobreski discloses a modified LLDPE comprising a mixture of a acrylic polymer. The claims do not specify the components comprising

the modified LLDPE, thus the inclusion of a blend in the modified LLDPE as disclosed by Dobreski is within the scope of the claims.

In response to appellants' argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Herein the examiner's conclusion of obviousness takes into account only the knowledge disclosed by the prior art reference (as cited in the rejection), i.e. only the knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the appellants' disclosure. In summation, the examiner has set forth a valid *prima facie* case of obviousness and appellants have failed to come forward with arguments and/or evidence to rebut the *prima facie* case.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Saira Haider/

Examiner, Art Unit 1796

/James J. Seidleck/

Supervisory Patent Examiner, Art Unit 1796

Conferees:

/J. S./

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